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## **ABSTRACT**

An equalizer is trained based on a packet, which includes a preamble segment, a header segment and a payload segment, wherein each of the segments has a symbol rate. Further, the equalizer has a number of filter taps. A training method of the equalizer includes adapting the filter taps according to the preamble segment and extracting from the header segment a symbol rate value of the payload segment. If the symbol rate value of the payload segment, which is extracted from the header segment, indicates that such symbol rate is higher than the symbol rates of the preamble and header segments, the filter taps are readapted according to the preamble segment, and a number of zeros are inserted into the preamble and header segments to account for the difference between the symbol rate of the payload segment and the symbol rates of the preamble and header segments.